



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,912	12/06/2004	Hitoshi Horiuchi	DK-US045259	8718
22919	7590	05/22/2007		
GLOBAL IP COUNSELORS, LLP 1233 20TH STREET, NW, SUITE 700 WASHINGTON, DC 20036-2680			EXAMINER HAMO, PATRICK	
			ART UNIT 3746	PAPER NUMBER
			MAIL DATE 05/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/516,912

Applicant(s)

HORIUCHI ET AL.

Examiner

Patrick Hamo

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This action is in response to amendments filed March 20, 2007.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama 5,199,854 in view of Norton, 5,228,289.

Aoyama discloses a pumping system with two pumps of fixed displacement, the displacement of a first pump Q1 larger than that of the second pump Q2, discharge lines 38a and 38b connected to the first and second pumps, respectively, an engine 36 driving both pumps, switch valves 42 and 43 used to selectively dump the discharge from the first and second pumps, connecting the discharge lines when neither is dumping and disconnecting the discharge lines when either one of two is dumping, a pressure control valve that inherently detects a pressure arranged upstream of the pumps, which detects the pressure of only the second discharge line when the first switch valve is commanded to dump the discharge of the first pump (see figure 9), and a discharge control valve circuit 50 that controls the switch valves 42 and 43 in a variety of modes as shown in figure 9, including a mode (a) in which the first discharge line is being dumped and the first pump is unloaded, and another mode (b) in which both

Art Unit: 3746

discharge lines are connected to each other, the discharge control valve circuit 50 responding to a rotational speed sensor 56 mounted on the drive shaft 36A of engine 36. The discharge control valve circuit and the pressure control valve work in concert to determine the mode of operation of the two-pump system (col. 10, l. 12—col. 12, l. 31), together forming a unitary control device. At low pressure and low rotational speed of the motor, the pumps are disconnected into one of the modes represented by either figure 9(a) or figure 9(c), and at high pressure and high rotational speed of the motor, to the mode represented by figure 9(b). Furthermore, the control means includes an input for the amount of fluid required to be supplied from the pumps, which is inherently a function of the rotational speed, and the discharge pressure, this input used to determine the operation mode of the pump system (col. 4, l. 18—col. 5, l. 2).

Aoyama does not disclose a control device configured to control a variable-speed motor.

However, Norton teaches a plural pump system with a valve element that controls motor energization in a continuously varying manner (col. 2, ll. 59-67) so it the pump system can operate efficiently at both high and low volume operation (Abstract, ll. 1-3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the system of Aoyama with the motor control of Norton in order to operate efficiently under various operating conditions.

Response to Arguments

Applicant's arguments, see pages 7-8, filed March 20, 2007, with respect to the rejection(s) of claim(s) 1-6 under 35 USC 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a newly found prior art reference.

Conclusion

Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F. R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims 'define a patentable invention' without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, 'The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims.'" Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP 2163.06 II(A), MPEP 2163.06 and MPEP 714.02. The "disclosure" includes the claims, the specification and the drawings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Hamo whose telephone number is 571-272-3492. The examiner can normally be reached on M-F 8:30-5.

Art Unit: 3746

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



PH



ANTHONY D. STASHICK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700